

**TITLE: VOLUNTEER PHYOTPLANKTON NETWORK**

**MILESTONE SHC 2.5.2:** Transfer technology, tools, and knowledge related to harmful algal bloom events to assist communities, resource managers, and health officials.

**CCEHBR SCIENTISTS/INVESTIGATORS:** Steve Morton (PI), Katherine Schaefer, Heather Blankenstein and Kimberly Nowocin

**EXTERNAL COLLABORATORS:** South Carolina Department of Marine Resources, Medical University of South Carolina, South Carolina SeaGrant, Clemson University-Extension Service, Charleston Aquarium, Ashley Hall, Battery Creek High School, Bishop England, Burke High School, First Baptist Church School, Forest Circle Middle School, Fort Johnson Middle School, Hanahan High School, Hilton Head High School, Hilton Head Middle School, James Island Christian School, James Island High School, Lady's Island Mielele School, Lincoln High School, Mason Preparatory School, Pinewood Preparatory School, Porter-Gaud, Socastee High school, Trident Academy, Wando High School, West Ashely High School, WhaleBranch Middle School, City of Awendaw, Colleton County, Dataw Island, Dewees Island, Folly Beach, Islae of Palms, Maes Island, McClellaville, Caw Caw Interpretive Center, Edisto Beach State Park, Hunting Island Sate Park, University of South Carolina Beaufort

**OBJECTIVES OF RESEARCH ACTIVITIES:** To determine the species composition and distribution of harmful and potentially toxic planktonic algae within South Carolina by a volunteer network and to educate students and environmental groups with the aim of raising awareness of harmful algae and their effects.

**DESCRIPTION OF RESEARCH ACTIVITIES:** Data on phytoplankton species occurrence, distribution, and abundance along the coast of South Carolina is lacking. A volunteer network made up of conservation groups and high school marine biology classes could assist in efforts to develop an up-to-date species list. Identification of volunteer groups is being conducted jointly with SC Sea Grant and SCDNR outreach and education personnel. The South Carolina Phytoplankton Monitoring Network (SCPMN) includes high schools, community groups, and individual citizens. A special emphasis is being placed on the involvement of SC school teachers and the integration of this activity with instruction based on the SCI-LINK Sourcebook on Harmful Algae. Groups are given classroom and onsite training by Marine Biotoxins Program staff.

## Graphic/Image/Figures



Students of Porter-Gaud High School being trained on phytoplankton sampling

## Selected Highlights

The South Carolina Phytoplankton Monitoring Network currently comprises 23 school groups, 10 citizen groups, and 4 park facilities. A total of 50 sampling sites are monitored weekly throughout coastal South Carolina. Unusually algal blooms were reported by SCPMN volunteers during 2002. An example of such blooms was reported by a citizen monitoring group from Dewees Island, SC. A non-toxic bloom of the blue-green algae, *Synechococcus*, which turned a local tidal pond pink is shown right.



Bloom of *Synechococcus* from Dewees Island

## ***Presentations:***

**Schaefer, K.A.**, Kimberly Nowocin, Heather Blankenstein, and Steve L. Morton. The Use of Volunteers to Monitor Phytoplankton. Xth International Conference on Harmful Algae, 2002. St. Petersburg, FL